Abstract

The present invention comprises a method and apparatus for automatic discovery of network devices with data forwarding capabilities. In one embodiment, the present invention sends SNMP queries to sets and/or ranges of IP numbers to determine whether a network device exists at each IP number and whether the network device has IP forwarding capabilities. The set of IP numbers searched may be specified by specifying ranges or subnets or by providing a list of discrete IP numbers. When a new network device with IP forwarding capabilities is discovered, that network device (identified by its IP number and SNMP description field) is added to a list of discovered network devices. The list is displayed to the network manager, who has the option of selecting none, one, or more than one of the network devices on the network device list for management by the network manager's network management system. In one embodiment, in addition to discovering newly added devices via IP number polling, the invention also discovers newly added devices from SNMP messages ("traps") broadcast by a newly added device. In one embodiment, each network device discovered as a result of a SNMP trap is added to the newly discovered device list, regardless of whether or not the network device has data forwarding capabilities.

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